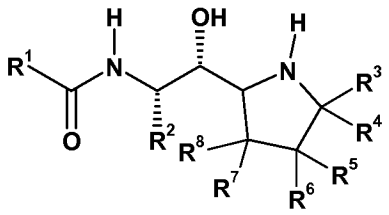
Amendments to the Claims

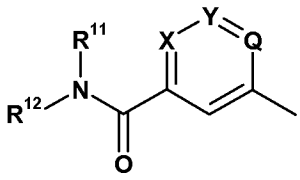
Claim 1. (original): A compound of Formula I:



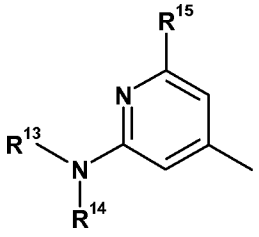
I

where:

R^1 is (C_3-C_7 cycloalkyl)$_{0-1}$(C_1-C_6 alkyl), (C_3-C_7 cycloalkyl)$_{0-1}$(C_2-C_6 alkenyl), (C_3-C_7 cycloalkyl)$_{0-1}$(C_2-C_6 alkynyl) or C_3-C_7 cycloalkyl, each optionally substituted with up to three groups independently selected from halo, hydroxy, thiol, cyano, trifluoromethyl, trifluoromethoxy, C_1-C_6 alkoxy, C_3-C_7 cycloalkoxy, oxo, and NR^9R^{10}, hydrogen, biphenyl



or



;

substituted with halo,

X is CH, N, or N^+-O^-;

Y is CR^{16}, N, or N^+-O^-;

Q is CR^{17}, N, or N^+-O^-;

R^2 is C_1-C_3 alkyl, benzyl optionally monosubstituted in the phenyl ring with a substituent selected from the group consisting of halo, C_1-C_6 alkoxy optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl, and C_1-C_6 alkylthio optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl, or benzyl optionally disubstituted in the phenyl ring with a first substituent independently selected from halo and a second substituent independently selected from halo, C_1-C_6 alkoxy optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl, and C_1-C_6 alkylthio optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl;

R^3 is hydrogen or C_1-C_6 alkyl;

R^4 is hydrogen, C_1-C_6 alkyl, or phenyl;

R^3 and R^4 taken together with the carbon to which they are attached form a C_3-C_6 cycloalkyl ring;

R^5 is hydrogen, fluoro, trifluoromethyl, R^{32}, or phenyl optionally monosubstituted with C_1-C_6 alkyl or C_1-C_6 alkoxy;

R^6 is fluoro, hydroxy, p-toluenesulfonyloxy, R^{34}, $-CH_2C(O)R^{35}$, or $-OC(O)NHR^{36}$; or R^5 and R^6 taken together form $=CHC(O)(C_1$-C_4 alkoxy);

R^7 is hydrogen or fluoro; or R^6 and R^7 taken together form a bond;

R^8 is hydrogen or fluoro;

R^9 is hydrogen, C_1-C_6 alkyl, or phenyl;

R^{10} is hydrogen, C_1-C_6 alkyl, phenyl, $-C(O)(C_1$-C_6 alkyl), or $-SO_2(C_1$-C_6 alkyl);

R^{11} and R^{12} are independently selected from the group consisting of methyl, ethyl, and propyl;

R^{13} is hydrogen or C_1-C_6 alkyl;

R^{14} is C_3-C_5 cycloalkyl, C_1-C_6 alkyl, or $-CH_2R^{18}$;

R^{15} is $-CF_2R^{19}$, $-OR^{20}$, $-CH_2C(O)CH_3$, $-S(O)_{1\text{-}2}R^{21}$, $-NR^{22}SO_2R^{23}$, (C_1-C_3 alkoxy)-carbonyl, phenyl optionally substituted with halo, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,1-dioxo-2,3,4,5-tetrahydroisothiazol-2-yl, or tetrazol-5-yl optionally substituted with C_1-C_3 alkyl;

R^{16} is hydrogen, chloro, isobutyl, CH_2R^{24}; CF_2R^{25}, 1,1,1-trifluoro-2-hydroxyeth-2-yl, C_2-C_4 alkenyl optionally substituted with one or two fluorine atoms, OR^{26}, $C(O)R^{27}$, N(methyl)(methylsulfonyl), N(methyl)(acetyl), pyrrolidin-2-on-1-yl, methylsulfonyl, N,N-dimethylaminosulfonyl, phenyl optionally substituted with one or two substituents selected from the group consisting of hydroxymethyl, methoxy, fluoro, and methylsulfonyl, 1,3-dioxolan-2-yl, 1,3-dithiolan-2-yl, 1,3-oxathiolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithian-2-yl, pyridinyl, thiazolyl, oxazolyl, or 1,2,4-oxadiazolyl optionally substituted with methyl;

R^{17} is hydrogen or fluoro;

R^{18} is ethynyl or cyclopropyl;

R^{19} is hydrogen or methyl;

R^{20} is difluoromethyl or methanesulfonyl;

R^{21} is C_1-C_4 alkyl, C_3-C_6 cycloalkyl, phenyl, or $-NR^{30}R^{31}$;

R^{22} is hydrogen, C_1-C_3 alkyl optionally substituted with up to 3 fluorine atoms, or C_3-C_6 cycloalkyl;

R^{23} is C_1-C_3 alkyl or C_3-C_6 cycloalkyl;

R^{24} is fluoro, hydroxy, or C_1-C_3 alkoxy;

R^{25} is hydrogen, phenyl, or furyl;

R^{26} is C_1-C_3 alkyl optionally substituted with one or two fluorine atoms;

R^{27} is C_1-C_3 alkyl, C_3-C_5 cycloalkyl, C_2-C_3 alkenyl, C_1-C_3 alkoxy, $NR^{28}R^{29}$, pyrrolidin-1-yl optionally substituted with methyl or one or two fluorine atoms, piperidin-1-yl, phenyl, pyridinyl, or furyl;

R^{28} is hydrogen or methyl;

R^{29} is methyl, ethyl, or propyl;

R^{30} is hydrogen or methyl;

R^{31} is methyl; or

R^{30} and R^{31} taken together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine ring;

R^{32} is C_1-C_{10} alkyl optionally substituted with 1-6 fluorine atoms, oxo, or one or two hydroxy groups, C_2-C_6 alkenyl, or $-(CH_2)_{0-3}-R^{33}$;

R^{33} is C_3-C_7 cycloalkyl or phenyl each optionally substituted with one or two substitutents independently selected from the group consisting of halo, C_1-C_6 alkyl, C_1-C_6 alkoxy, hydroxy, trifluoromethyl, and trifluoromethoxy, or R^{33} is adamantyl;

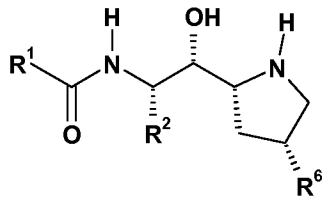
R^{34} is hydrogen, R^{32}, or $-(CH_2)_{0-2}-OR^{32}$;

R^{35} is hydroxy, C_1-C_6 alkoxy, or $NR^{37}R^{38}$ where R^{37} and R^{38} are independently hydrogen or C_1-C_6 alkyl, or R^{37} and R^{38}, taken together with the nitrogen to which they are attached, form a piperidine ring optionally substituted with C_1-C_6 alkyl, a homopiperidine ring, a morpholine ring, or a pyrrolidine ring optionally substituted with (C_1-C_6 alkoxy)methyl;

R^{36} is C_1-C_6 alkyl or adamantyl;

or a pharmaceutically acceptable salt thereof; provided that: a) no more than one of X, Y, and Q may be N or N^+-O^-; and b) when X is CH, Y is CR^{16}, and Q is CR^{17}, then one of R^{16} and R^{17} is other than hydrogen.

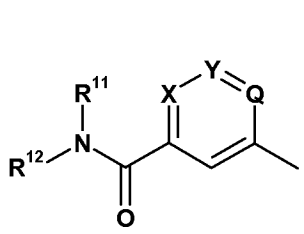
Claim 2 (original) A compound of Formula I(a):



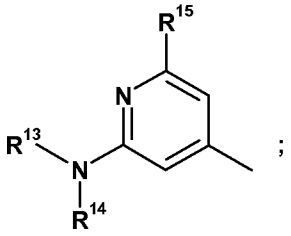
I(a)

where:

R^1 is (C_3-C_7 cycloalkyl)$_{0-1}$(C_1-C_6 alkyl), (C_3-C_7 cycloalkyl)$_{0-1}$(C_2-C_6 alkenyl), (C_3-C_7 cycloalkyl)$_{0-1}$(C_2-C_6 alkynyl) or C_3-C_7 cycloalkyl, each optionally substituted with up to three groups independently selected from halo, hydroxy, thiol, cyano, trifluoromethyl, trifluoromethoxy, C_1-C_6 alkoxy, C_3-C_7 cycloalkoxy, oxo, and NR^9R^{10}, hydrogen, biphenyl



or



;

substituted with halo,

X is CH, N, or N^+-O^-;

Y is CR^{16}, N, or N^+-O^-;

Q is CR^{17}, N, or N^+-O^-;

R^2 is C_1-C_3 alkyl, benzyl optionally monosubstituted in the phenyl ring with a substituent selected from the group consisting of halo, C_1-C_6 alkoxy optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl, and C_1-C_6 alkylthio optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl, or benzyl optionally disubstituted in the phenyl ring with a first substituent independently selected from halo and a second substituent independently selected from halo, C_1-C_6 alkoxy optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl, and C_1-C_6 alkylthio optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl;

R^6 is fluoro, hydroxy, p-toluenesulfonyloxy, R^{34}, $–CH_2C(O)R^{35}$, or $–OC(O)NHR^{36}$; or R^5 and R^6 taken together form =CHC(O)(C_1-C_4 alkoxy);

R^9 is hydrogen, C_1-C_6 alkyl, or phenyl;

R^{10} is hydrogen, C_1-C_6 alkyl, phenyl, -C(O)(C_1-C_6 alkyl), or $–SO_2$(C_1-C_6 alkyl);

R^{11} and R^{12} are independently selected from the group consisting of methyl, ethyl, and propyl;

R^{13} is hydrogen or C_1-C_6 alkyl;

R^{14} is C_3-C_5 cycloalkyl, C_1-C_6 alkyl, or $–CH_2R^{18}$;

R^{15} is $–CF_2R^{19}$, $-OR^{20}$, $-CH_2C(O)CH_3$, $-S(O)_{1-2}R^{21}$, $-NR^{22}SO_2R^{23}$, (C_1-C_3 alkoxy)-carbonyl, phenyl optionally substituted with halo, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,1-dioxo-2,3,4,5-tetrahydroisothiazol-2-yl, or tetrazol-5-yl optionally substituted with C_1-C_3 alkyl;

R^{16} is hydrogen, chloro, isobutyl, CH_2R^{24}; CF_2R^{25}, 1,1,1-trifluoro-2-hydroxyeth-2-yl, C_2-C_4 alkenyl optionally substituted with one or two fluorine atoms, OR^{26}, $C(O)R^{27}$,

N(methyl)(methylsulfonyl), N(methyl)(acetyl), pyrrolidin-2-on-1-yl, methylsulfonyl, N,N-dimethylaminosulfonyl, phenyl optionally substituted with one or two substituents selected from the group consisting of hydroxymethyl, methoxy, fluoro, and methylsulfonyl, 1,3-dioxolan-2-yl, 1,3-dithiolan-2-yl, 1,3-oxathiolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithian-2-yl, pyridinyl, thiazolyl, oxazolyl, or 1,2,4-oxadiazolyl optionally substituted with methyl;

R^{17} is hydrogen or fluoro;

R^{18} is ethynyl or cyclopropyl;

R^{19} is hydrogen or methyl;

R^{20} is difluoromethyl or methanesulfonyl;

R^{21} is C_1-C_4 alkyl, C_3-C_6 cycloalkyl, phenyl, or $-NR^{30}R^{31}$;

R^{22} is hydrogen, C_1-C_3 alkyl optionally substituted with up to 3 fluorine atoms, or C_3-C_6 cycloalkyl;

R^{23} is C_1-C_3 alkyl or C_3-C_6 cycloalkyl;

R^{24} is fluoro, hydroxy, or C_1-C_3 alkoxy;

R^{25} is hydrogen, phenyl, or furyl;

R^{26} is C_1-C_3 alkyl optionally substituted with one or two fluorine atoms;

R^{27} is C_1-C_3 alkyl, C_3-C_5 cycloalkyl, C_2-C_3 alkenyl, C_1-C_3 alkoxy, $NR^{28}R^{29}$, pyrrolidin-1-yl optionally substituted with methyl or one or two fluorine atoms, piperidin-1-yl, phenyl, pyridinyl, or furyl;

R^{28} is hydrogen or methyl;

R^{29} is methyl, ethyl, or propyl;

R^{30} is hydrogen or methyl;

R^{31} is methyl; or

R^{30} and R^{31} taken together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine ring;

R^{32} is C_1-C_{10} alkyl optionally substituted with 1-6 fluorine atoms, oxo, or one or two hydroxy groups, C_2-C_6 alkenyl, or $-(CH_2)_{0-3}$-R^{33};

R^{33} is C_3-C_7 cycloalkyl or phenyl each optionally substituted with one or two substitutents independently selected from the group consisting of halo, C_1-C_6 alkyl, C_1-C_6 alkoxy, hydroxy, trifluoromethyl, and trifluoromethoxy, or R^{33} is adamantyl;

R^{34} is hydrogen, R^{32}, or $-(CH_2)_{0-2}$-OR^{32};

R^{35} is hydroxy, C_1-C_6 alkoxy, or $NR^{37}R^{38}$ where R^{37} and R^{38} are independently hydrogen or C_1-C_6 alkyl, or R^{37} and R^{38}, taken together with the nitrogen to which they are

attached, form a piperidine ring optionally substituted with C_1-C_6 alkyl, a homopiperidine ring, a morpholine ring, or a pyrrolidine ring optionally substituted with (C_1-C_6 alkoxy)methyl;

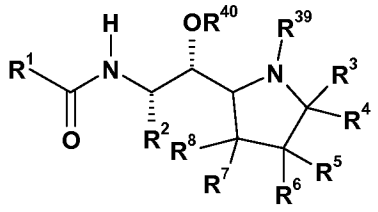
R^{36} is C_1-C_6 alkyl or adamantyl;

or a pharmaceutically acceptable salt thereof; provided that: a) no more than one of X, Y, and Q may be N or N^+-O^-; and b) when X is CH, Y is CR^{16}, and Q is CR^{17}, then one of R^{16} and R^{17} is other than hydrogen.

Claims 3-7 (cancelled)

Claim 8 (currently amended): A pharmaceutical formulation comprising a compound of Claim 1~~either of Claims 1 or 2~~, in combination with a pharmaceutically acceptable carrier, diluent, or excipient.

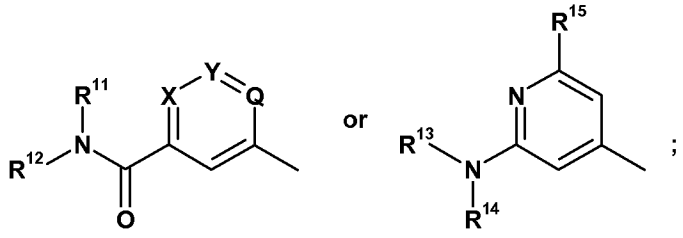
Claim 9 (original) A compound of Formula III:



III

where:

R^1 is (C_3-C_7 cycloalkyl)$_{0-1}$(C_1-C_6 alkyl), (C_3-C_7 cycloalkyl)$_{0-1}$(C_2-C_6 alkenyl), (C_3-C_7 cycloalkyl)$_{0-1}$(C_2-C_6 alkynyl) or C_3-C_7 cycloalkyl, each optionally substituted with up to three groups independently selected from halo, hydroxy, thiol, cyano, trifluoromethyl, trifluoromethoxy, C_1-C_6 alkoxy, C_3-C_7 cycloalkoxy, oxo, and NR^9R^{10}, hydrogen, biphenyl



substituted with halo,

X is CH, N, or N^+-O^-;

Y is CR^{16}, N, or N^+-O^-;

Q is CR^{17}, N, or N^+-O^-;

R^2 is C_1-C_3 alkyl, benzyl optionally monosubstituted in the phenyl ring with a substituent selected from the group consisting of halo, C_1-C_6 alkoxy optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl, and C_1-C_6 alkylthio optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl, or benzyl optionally disubstituted in the phenyl ring with a first substituent independently selected from halo and a second substituent independently selected from halo, C_1-C_6 alkoxy optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl, and C_1-C_6 alkylthio optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl;

R^3 is hydrogen or C_1-C_6 alkyl;

R^4 is hydrogen, C_1-C_6 alkyl, or phenyl;

R^3 and R^4 taken together with the carbon to which they are attached form a C_3-C_6 cycloalkyl ring;

R^5 is hydrogen, fluoro, trifluoromethyl, R^{32}, or phenyl optionally monosubstituted with C_1-C_6 alkyl or C_1-C_6 alkoxy;

R^6 is fluoro, hydroxy, p-toluenesulfonyloxy, R^{34}, $-CH_2C(O)R^{35}$, or $-OC(O)NHR^{36}$; or R^5 and R^6 taken together form $=CHC(O)(C_1$-C_4 alkoxy);

R^7 is hydrogen or fluoro; or R^6 and R^7 taken together form a bond;

R^8 is hydrogen or fluoro;

R^9 is hydrogen, C_1-C_6 alkyl, or phenyl;

R^{10} is hydrogen, C_1-C_6 alkyl, phenyl, $-C(O)(C_1$-C_6 alkyl), or $-SO_2(C_1$-C_6 alkyl);

R^{11} and R^{12} are independently selected from the group consisting of methyl, ethyl, and propyl;

R^{13} is hydrogen or C_1-C_6 alkyl;

R^{14} is C_3-C_5 cycloalkyl, C_1-C_6 alkyl, or $-CH_2R^{18}$;

R^{15} is $-CF_2R^{19}$, $-OR^{20}$, $-CH_2C(O)CH_3$, $-S(O)_{1\text{-}2}R^{21}$, $-NR^{22}SO_2R^{23}$, (C_1-C_3 alkoxy)-carbonyl, phenyl optionally substituted with halo, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,1-dioxo-2,3,4,5-tetrahydroisothiazol-2-yl, or tetrazol-5-yl optionally substituted with C_1-C_3 alkyl;

R^{16} is hydrogen, chloro, isobutyl, CH_2R^{24}; CF_2R^{25}, 1,1,1-trifluoro-2-hydroxyeth-2-yl, C_2-C_4 alkenyl optionally substituted with one or two fluorine atoms, OR^{26}, $C(O)R^{27}$, N(methyl)(methylsulfonyl), N(methyl)(acetyl), pyrrolidin-2-on-1-yl, methylsulfonyl, N,N-dimethylaminosulfonyl, phenyl optionally substituted with one or two substituents selected from the group consisting of hydroxymethyl, methoxy, fluoro, and methylsulfonyl, 1,3-

dioxolan-2-yl, 1,3-dithiolan-2-yl, 1,3-oxathiolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithian-2-yl, pyridinyl, thiazolyl, oxazolyl, or 1,2,4-oxadiazolyl optionally substituted with methyl;

R^{17} is hydrogen or fluoro;

R^{18} is ethynyl or cyclopropyl;

R^{19} is hydrogen or methyl;

R^{20} is difluoromethyl or methanesulfonyl;

R^{21} is C_1-C_4 alkyl, C_3-C_6 cycloalkyl, phenyl, or $-NR^{30}R^{31}$;

R^{22} is hydrogen, C_1-C_3 alkyl optionally substituted with up to 3 fluorine atoms, or C_3-C_6 cycloalkyl;

R^{23} is C_1-C_3 alkyl or C_3-C_6 cycloalkyl;

R^{24} is fluoro, hydroxy, or C_1-C_3 alkoxy;

R^{25} is hydrogen, phenyl, or furyl;

R^{26} is C_1-C_3 alkyl optionally substituted with one or two fluorine atoms;

R^{27} is C_1-C_3 alkyl, C_3-C_5 cycloalkyl, C_2-C_3 alkenyl, C_1-C_3 alkoxy, $NR^{28}R^{29}$, pyrrolidin-1-yl optionally substituted with methyl or one or two fluorine atoms, piperidin-1-yl, phenyl, pyridinyl, or furyl;

R^{28} is hydrogen or methyl;

R^{29} is methyl, ethyl, or propyl;

R^{30} is hydrogen or methyl;

R^{31} is methyl; or

R^{30} and R^{31} taken together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine ring;

R^{32} is C_1-C_{10} alkyl optionally substituted with 1-6 fluorine atoms, oxo, or one or two hydroxy groups, C_2-C_6 alkenyl, or $-(CH_2)_{0-3}$-R^{33};

R^{33} is C_3-C_7 cycloalkyl or phenyl each optionally substituted with one or two substitutents independently selected from the group consisting of halo, C_1-C_6 alkyl, C_1-C_6 alkoxy, hydroxy, trifluoromethyl, and trifluoromethoxy, or R^{33} is adamantyl;

R^{34} is hydrogen, R^{32}, or $-(CH_2)_{0-2}$-OR^{32};

R^{35} is hydroxy, C_1-C_6 alkoxy, or $NR^{37}R^{38}$ where R^{37} and R^{38} are independently hydrogen or C_1-C_6 alkyl, or R^{37} and R^{38}, taken together with the nitrogen to which they are attached, form a piperidine ring optionally substituted with C_1-C_6 alkyl, a homopiperidine ring, a morpholine ring, or a pyrrolidine ring optionally substituted with (C_1-C_6 alkoxy)methyl;

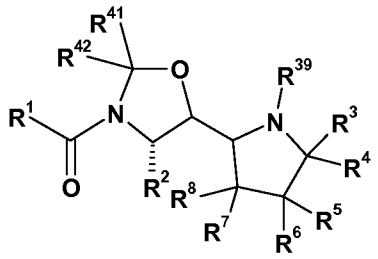
R^{36} is C_1-C_6 alkyl or adamantyl;

R^{39} is hydrogen or a nitrogen protecting group;

R^{40} is hydrogen or an oxygen protecting group;

or an acid addition salt thereof; provided that: a) no more than one of X, Y, and Q may be N or N^+-O^-; b) when X is CH, Y is CR^{16}, and Q is CR^{17}, then one of R^{16} and R^{17} is other than hydrogen; and c) at least one of R^{39} and R^{40} is other than hydrogen.

Claim 10 (original): A compound of Formula IV:

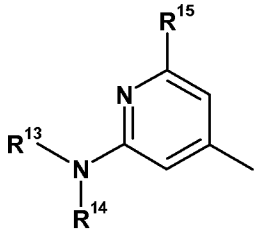


IV

where:

R^1 is (C_3-C_7 cycloalkyl)$_{0-1}$(C_1-C_6 alkyl), (C_3-C_7 cycloalkyl)$_{0-1}$(C_2-C_6 alkenyl), (C_3-C_7 cycloalkyl)$_{0-1}$(C_2-C_6 alkynyl) or C_3-C_7 cycloalkyl, each optionally substituted with up to three groups independently selected from halo, hydroxy, thiol, cyano, trifluoromethyl, trifluoromethoxy, C_1-C_6 alkoxy, C_3-C_7 cycloalkoxy, oxo, and NR^9R^{10}, hydrogen, biphenyl

or



;

substituted with halo,

X is CH, N, or N^+-O^-;

Y is CR^{16}, N, or N^+-O^-;

Q is CR^{17}, N, or N^+-O^-;

R^2 is C_1-C_3 alkyl, benzyl optionally monosubstituted in the phenyl ring with a substituent selected from the group consisting of halo, C_1-C_6 alkoxy optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl, and C_1-C_6 alkylthio optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl, or benzyl optionally disubstituted in the phenyl ring with a first substituent independently selected from halo and a second substituent independently selected

from halo, C_1-C_6 alkoxy optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl, and C_1-C_6 alkylthio optionally substituted in the alkyl chain with C_3-C_7 cycloalkyl;

R^3 is hydrogen or C_1-C_6 alkyl;

R^4 is hydrogen, C_1-C_6 alkyl, or phenyl;

R^3 and R^4 taken together with the carbon to which they are attached form a C_3-C_6 cycloalkyl ring;

R^5 is hydrogen, fluoro, trifluoromethyl, R^{32}, or phenyl optionally monosubstituted with C_1-C_6 alkyl or C_1-C_6 alkoxy;

R^6 is fluoro, hydroxy, p-toluenesulfonyloxy, R^{34}, $-CH_2C(O)R^{35}$, or $-OC(O)NHR^{36}$; or R^5 and R^6 taken together form $=CHC(O)(C_1$-C_4 alkoxy) or oxo;

R^7 is hydrogen or fluoro; or R^6 and R^7 taken together form a bond;

R^8 is hydrogen or fluoro;

R^9 is hydrogen, C_1-C_6 alkyl, or phenyl;

R^{10} is hydrogen, C_1-C_6 alkyl, phenyl, $-C(O)(C_1$-C_6 alkyl), or $-SO_2(C_1$-C_6 alkyl);

R^{11} and R^{12} are independently selected from the group consisting of methyl, ethyl, and propyl;

R^{13} is hydrogen or C_1-C_6 alkyl;

R^{14} is C_3-C_5 cycloalkyl, C_1-C_6 alkyl, or $-CH_2R^{18}$;

R^{15} is $-CF_2R^{19}$, $-OR^{20}$, $-CH_2C(O)CH_3$, $-S(O)_{1-2}R^{21}$, $-NR^{22}SO_2R^{23}$, (C_1-C_3 alkoxy)-carbonyl, phenyl optionally substituted with halo, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,1-dioxo-2,3,4,5-tetrahydroisothiazol-2-yl, or tetrazol-5-yl optionally substituted with C_1-C_3 alkyl;

R^{16} is hydrogen, chloro, isobutyl, CH_2R^{24}; CF_2R^{25}, 1,1,1-trifluoro-2-hydroxyeth-2-yl, C_2-C_4 alkenyl optionally substituted with one or two fluorine atoms, OR^{26}, $C(O)R^{27}$, N(methyl)(methylsulfonyl), N(methyl)(acetyl), pyrrolidin-2-on-1-yl, methylsulfonyl, N,N-dimethylaminosulfonyl, phenyl optionally substituted with one or two substituents selected from the group consisting of hydroxymethyl, methoxy, fluoro, and methylsulfonyl, 1,3-dioxolan-2-yl, 1,3-dithiolan-2-yl, 1,3-oxathiolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithian-2-yl, pyridinyl, thiazolyl, oxazolyl, or 1,2,4-oxadiazolyl optionally substituted with methyl;

R^{17} is hydrogen or fluoro;

R^{18} is ethynyl or cyclopropyl;

R^{19} is hydrogen or methyl;

R^{20} is difluoromethyl or methanesulfonyl;

R^{21} is C_1-C_4 alkyl, C_3-C_6 cycloalkyl, phenyl, or $-NR^{30}R^{31}$;

R^{22} is hydrogen, C_1-C_3 alkyl optionally substituted with up to 3 fluorine atoms, or C_3-C_6 cycloalkyl;

R^{23} is C_1-C_3 alkyl or C_3-C_6 cycloalkyl;

R^{24} is fluoro, hydroxy, or C_1-C_3 alkoxy;

R^{25} is hydrogen, phenyl, or furyl;

R^{26} is C_1-C_3 alkyl optionally substituted with one or two fluorine atoms;

R^{27} is C_1-C_3 alkyl, C_3-C_5 cycloalkyl, C_2-C_3 alkenyl, C_1-C_3 alkoxy, $NR^{28}R^{29}$, pyrrolidin-1-yl optionally substituted with methyl or one or two fluorine atoms, piperidin-1-yl, phenyl, pyridinyl, or furyl;

R^{28} is hydrogen or methyl;

R^{29} is methyl, ethyl, or propyl;

R^{30} is hydrogen or methyl;

R^{31} is methyl; or

R^{30} and R^{31} taken together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine ring;

R^{32} is C_1-C_{10} alkyl optionally substituted with 1-6 fluorine atoms, oxo, or 1 or 2 hydroxy groups, C_2-C_6 alkenyl, or $-(CH_2)_{0-3}$-R^{33};

R^{33} is C_3-C_7 cycloalkyl or phenyl each optionally substituted with one or two substitutents independently selected from the group consisting of halo, C_1-C_6 alkyl, C_1-C_6 alkoxy, hydroxy, trifluoromethyl, and trifluoromethoxy, or R^{33} is adamantyl;

R^{34} is hydrogen, R^{32}, or $-(CH_2)_{0-2}$-OR^{32};

R^{35} is hydroxy, C_1-C_6 alkoxy, or $NR^{37}R^{38}$ where R^{37} and R^{38} are independently hydrogen or C_1-C_6 alkyl, or R^{37} and R^{38}, taken together with the nitrogen to which they are attached, form a piperidine ring optionally substituted with C_1-C_6 alkyl, a homopiperidine ring, a morpholine ring, or a pyrrolidine ring optionally substituted with (C_1-C_6 alkoxy)methyl;

R^{36} is C_1-C_6 alkyl or adamantyl;

R^{39} is hydrogen or a nitrogen protecting group;

R^{41} and R^{42} are independently selected from methyl, ethyl, and propyl;

or an acid addition salt thereof; provided that no more than one of X, Y, and Q may be N or N^+-O^-.

Claim 11 (new): A method for the inhibition of production of A-β peptide comprising administering to a mammal in need of such treatment an effective amount of a compound of Claim 1.

Claim 12 (new): A method of inhibiting BACE in a mammal comprising administering to a mammal in need of such treatment an effective amount of a compound of Claim 1.